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Olin CHEMICALS
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September 21, 1993

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VIA FAX
VIA CERTIFIED MAIL,
RETURN RECEIPT REQUESTED

Kenneth A. Lucas
Senior Remedial Project Manager
United States Environmental Protection Agency
345 Courtland Street Northeast
Atlanta, Georgia 30365

Re: Objection to Notice of Disapproval
Draft Feasibility Study Report and
Final Report, Potential Soil Clean-up Levels
Olin Chemicals/McIntosh Plant Site
McIntosh, Alabama

Dear Mr. Lucas:

This is in response to comments received from the U. S. Environmental Protection Agency (EPA) disapproving Olin Corporation's (Olin) Draft Feasibility Study (FS) and Final Report, Potential Soil Action Levels (PSAL) for the McIntosh Site. These comments were by letter to Olin's James C. Brown from EPA's Kenneth A. Lucas, which letter was dated September 2, 1993, and received by Olin on September 7, 1993. Pursuant to Paragraph XIV of the Administrative Order By Consent for Remedial Investigation/Feasibility Study (AOC) entered into between Olin Corporation and the EPA on May 2, 1990, Olin Corporation hereby notifies the EPA Project Coordinator that Olin objects to EPA's Notice of Disapproval for the two subject reports. Olin hereby initiates the dispute resolution process specified in Section XIV of the AOC.

Olin Corporation disputes some EPA's comments because they lack technical merit, some because they exceed the scope of the approved Work Plan for this site, some because they deviate from EPA guidance under which this Remedial Investigation/Feasibility Study (RI/FS) is being conducted, and some because of a combination of the above three reasons.

Specific objections, and the bases of these objections, are as follows:

1. EPA has unreasonably and arbitrarily decided that certain Solid Waste Management Units (SWMUs) are continuing sources of contamination to groundwater, despite clear evidence that they are not.

EPA General Comment #1 and Specific Comment #4[1] refer to this position. Olin disputes EPA's decision because a SWMU that is a source of groundwater contamination must have the following characteristics:

- 1) waste constituents 2) present in leachate or a separate phase 3) that are mobile and 4) leak from the SWMU to the water table, or
- 1) waste constituents 2) that are subject to mobilization 3) by infiltrating rainwater 4) to a degree that the constituents will reach the water table, or
- 1) waste constituents 2) that are below the water table.

None of the SWMUs cited in EPA's comments have the above characteristics.

Under the approved Work Plan, Olin assessed the potential for continuing sources of groundwater contamination[2] by reviewing trends in concentrations of waste constituents in the groundwater and by collecting and analyzing waste (or soil, in the case of those SWMUs where the waste was releases from process areas) samples. The basis of the trend review was: if groundwater concentrations are decreasing, then a significant continuing source is not present. The basis of the sample analysis was: if total constituent concentration and the leachability of the constituent from the waste or soil matrix is low, then mobility of the constituent is low. If monitoring wells were not close enough to a unit to relate results from waste/soil analysis to groundwater directly affected by a unit, a conservative modeling was conducted to assess the mobility of waste/soil constituents. Data[3] from the Remedial Investigation (RI) report indicating

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[1] This comment states that ". . . results of the remedial investigation indicate that the following areas: . . . are continuing sources of groundwater contamination." However, EPA and Olin agreed to a resolution of EPA's comments on the RI report relating to the SWMUs listed in this FS comment, and the RI report was revised accordingly. EPA's RI comments were transmitted to Olin June 8, 1993, and Olin responded June 23, 1993. The agreement was at a July 1 meeting, and Olin resubmitted the revised RI report on July 30, 1993.

[2] Olin acknowledges that sources of groundwater contamination have existed in the past or else we would not see the significant concentrations in the groundwater that we see today. Indeed, the RI report states that the soils beneath the old plant (CPC) landfill probably are now a continuing source of organics to the groundwater. Olin has concluded based on the nature of the contaminants that the former brine ponds were the source of mercury and chlorides, which tend to occur together, and that releases in the early days of operation from the organics plant were the primary source of organics, notwithstanding the above statement regarding the old plant (CPC) landfill as a present continuing source.

[3] Obviously, we have not attempted to repeat the RI report here, but are including the significant data that indicate that these units are not continuing sources of groundwater contamination to convey the basis of our objection. Olin also notes that these FS comments are the first time that EPA has indicated that it believed the subject SWMUs were continuing sources of groundwater contamination. If fact, EPA has changed its position regarding these SWMUs as possible continuing sources. In its initial review of the draft FS, EPA requested (C. W. Smith to J. C. Brown, May 17, 1993) that Olin provide modeling to establish soil action levels for all continuing sources of groundwater contamination. In a conference call of May 19, initiated by EPA to ensure that EPA and Olin agreed to the scope of the modeling effort, EPA agreed that modeling only needed to be conducted for the old plant (CPC) landfill and the former CPC plant area, the two SWMU/AOCs identified as potential continuing sources of groundwater contamination.

SWMUs listed in EPA's comments are not continuing sources of groundwater contamination are discussed below for each SWMU.

Sanitary Landfills (SWMU 12) - The sanitary landfills are two closed units that comprise about 12 acres. Cells at the landfill were dug six feet deep, which placed the bottom of the waste well above the water table. The landfills were intended for the disposal of only sanitary waste, trash, and debris, although the RI results of low concentrations of mercury (8 to 27 mg/kg), hexachlorobenzene (10 to 44 mg/kg), and other minor constituents, indicate that some waste contained an incidental amount of chemicals. The two units were covered with clay in 1984.

Three randomly-located borings were used to collect soil/waste samples from the landfills. Each boring penetrated the full waste depth (0 to 7 feet) and was composited for analysis. The samples were analyzed for TCL and TAL compounds and subjected to the Toxicity Characteristic Leaching Procedure (TCLP) for mercury. The complete analytical results can be found in Appendix F of the RI report, on the three pages entitled OU-1 Soil Results, Sanitary Landfill. A review of these results shows that results were low, with some elevated levels of mercury (8 to 27 mg/kg), hexachlorobenzene (10 to 44 mg/kg), chromium (21 to 36 mg/kg), lead (13 to 63 mg/kg), and chlorobenzene (0.037 to 6 mg/kg). While these concentrations may appear at first glance to be of concern, they are total concentrations in a clay covered landfill, abcve the water table. If these constituents are not mobile or subject to mobilization, they do not present a present or future threat to groundwater. The TCLP was used to assess mobility of mercury, which was not detectable in the extract of any of the three samples. In other words, even under the aggressive leaching of the TCLP, mercury did not partition to the liquid phase. Mercury would certainly not partition to any infiltrating rainwater, which would be limited in quantity by the clay cover anyway. The TCLP was conducted only for mercury since it is the primary constituent of concern at McIntosh. The mobility of other constituents found in sanitary landfill waste was assessed by looking at the concentrations in the monitoring wells adjacent to the landfill.

Three monitoring wells are located at the immediate edge of the waste management area, one west (SL4), and a cluster of two (perched aquifer and Alluvial aquifer) east (SL2/SL3) of the units. Gradients near the landfills are relatively flat, but localized groundwater flow direction near the landfills is generally west to east. Thus, well SL4 is upgradient, although the gradient is flat enough that mounding at the landfill or seasonal gradient changes may have directed flow toward it. Wells SL2/SL3 are downgradient. Groundwater analytical results are also presented in Appendix F of the RI report, grouped by volatile, semi-volatile, pesticide/PCB, selected TAL, and conventional compounds, and sorted by well number within these groups. A review of these results indicates that of the volatile compounds in SL3 only chlorobenzene was detected at an estimated 9 ug/l and in SL4 only chloroform was detected at an estimated 3 ug/l. No semi-volatile or pesticide/PCB compounds were detected in any sanitary landfill well.

The selected TAL results are more difficult to summarize. The initial results from the September 1991 sampling appeared to indicate elevated concentrations in the groundwater of

antimony, beryllium, chromium, and nickel. However, there were analytical problems with these analytes in samples from wells across the site, necessitating high dilutions to analyze, and the results were questioned. Consequently, a number of wells, including SL2, SL3, and SL4, were resampled in July 1993. The resampling resolved the analytical problems with the sanitary landfill wells. The four compounds listed above, which appeared to range from non-detectable to 2120 ug/l in the September 1991 sampling, were shown to actually range from non-detectable to 12 ug/l.

In summary, no compound found in the sanitary landfill waste/soil samples has shown any potential to leach from the waste/soil matrix. Groundwater monitoring well results downgradient from the landfill indicate concentrations the same as upgradient. TCLP results for mercury indicate no potential to leach. Therefore, the data indicate that the sanitary landfills do not conform to the characteristics of SWMUs that are continuing sources of groundwater contamination.

Lime Ponds (SWMU 4) - The east and west lime ponds[4] were used exclusively to manage spent lime slurry used to absorb chlorine gas from various vent streams. Their use ceased in 1976 and they were closed in 1979 with ash for stabilization, a clay cap, topsoil, and grass.

To assess the potential for the lime ponds to contribute mercury to groundwater, a boring was located near the center of each pond and a composite sample was collected from the zone of lime waste encountered in each of the two ponds. The samples were analyzed for total and TCLP mercury because it was the only constituent of concern and no organics were handled in the units. Total mercury was 0.46 and 1.3 mg/kg. TCLP mercury was 3 and 10 ug/l. A conservative modeling approach, assuming that all rain water penetrating the clay cover reaches equilibrium at 10 ug/l, the higher of the TCLP results, and simply mixes with the groundwater flowing beneath the unit (i.e., no attenuation by unsaturated zone soils) was used to assess potential as a continuing source. The modeling is presented on pages 5-42 to 5-45 of the RI report. The model estimates of 0.1 to 0.2 ug/l mercury in groundwater beneath the lime pond clearly indicate, even with the conservative assumptions used, that the lime ponds do not have the potential to act as a continuing source of mercury to groundwater.[5] This is especially true in light of upgradient mercury concentrations in the same aquifer of typically 10 to 100 ug/l (see, for example, in Appendix H of the RI, groundwater data for well BR8 presented on the time-concentration curve labeled BR-08). Downgradient mercury concentrations are typically non-detectable to 1 ug/l (see curve labeled LP-03 in Appendix H). The lime ponds are clearly not a continuing source of mercury to groundwater.

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[4] "Ponds" refers to the nature of these units during operation. They are now capped, with a mounded, above grade appearance, with no characteristics of a pond.

[5] A reaction to this statement could be that since the model estimates that some mercury may reach groundwater, then the modeled unit is a continuing source. As emphasized, the model is a tool to assess potential, and the tool has been applied in the most conservative manner to eliminate the possibility of false negatives. If the mere presence of mercury in a unit is to be the basis for declaring it a continuing source, then the entire RI/FS process, as underpinned by CERCLA, the NCP, and EPA guidance, is unnecessary, and we do not need to assess the potential nor exposure pathways nor risk.

Mercury Cell Plant (AOC B) - This area was the location of the mercury cell rooms until the plant was shutdown in 1982 and demolished in 1986. Demolition consisted of removing all structures to grade, which consisted of the concrete bottom floor of the building. Because the cell rooms had been potential sources of mercury releases during operation and to minimize rain water infiltration that might become contaminated, the floor was covered with a synthetic roofing membrane and asphalt. To assess the potential for soils beneath this former building to continue to act as source of mercury to groundwater, six core samples were collected from the one acre area in an unbiased grid pattern. The cores were advanced four feet into the soils beneath the membrane/asphalt. The upper four feet was selected as representing the highest potential for containing mercury. A composite sample from each core was analyzed for total and TCLP mercury. Not surprisingly, because this was a building that was in operation for thirty years, the six results varied widely: in three samples, total mercury was not detected, and in the other three total mercury was 0.4, 3, and 164 mg/kg. TCLP mercury, indicative of the potential of mercury to leach from the soil matrix, was not detected in five samples, and was 40 ug/l in the sample with 164 mg/kg total mercury.

As discussed for other units above, because there are no wells up- and downgradient from the mercury cell plant area, modeling was used to estimate the potential for the area to act as source of continuing groundwater contamination. Again, conservative assumptions were made for all model input. In this case, the presence of the membrane/asphalt was ignored, resulting in a "worst case" volume of rain water infiltration, and the equilibrium concentration in the rain water was assumed to be 40 ug/l, the highest TCLP result, even though the other five samples had TCLP extracts where mercury was not detected. Even with the conservative assumptions, the estimated mercury concentration in groundwater was 0.3 ug/l as presented on pages 5-48 through 5-51 of the RI report. Based on this, it is clear that the former mercury cell plant is not a continuing source of mercury to groundwater.

Well Sand Residue Area (AOC D) - Well sands were generated during the period from 1952 to 1968 from development and operation of the brine wells for the mercury cell chlor-alkali process. These sands were residues of the natural insoluble material from the salt domes. During early operation of the mercury cell plant, when the well sands were generated, they were deposited in mounds in an area referred to in the RFA as the well sand residue area. The well sand in these mounds is a cohesive granular material that has the consistency of sandstone. The well sand material was sampled to determine the mercury content and assess the leachability of any detected mercury. Samples were collected at ten randomly selected areas and depths within the mounds; the 10 individual samples were ground and composited into one sample for analysis (mercury and TCLP mercury). The total mercury concentration in the well sand composite sample was 20.1 mg/kg. Mercury was not detected in the leachate from the TCLP analysis. Although mercury is contained in the well sand, the mercury is not leachable (based on the TCLP test) and clearly cannot be a continuing source to groundwater.

Old Plant (CPC) Landfill Drainage Ditch (SWMU 35) - The sampling objective established in the Work Plan for this SWMU was to assess the potential for contaminants from the ditch to

have contaminated underlying soils. As a result, only total constituent analysis (i.e., no leachate tests) were conducted. Consequently, data do not exist to assess this SWMU as a potential continuing source of groundwater contamination. Based on the analytical results for total constituent analysis (see Appendix F of RI report), Olin does not believe it is a continuing source. Only mercury, at concentration of 10 mg/kg, and hexachlorobenzene, at concentration of 6 mg/kg, were found in any significant concentration. Hexachlorobenzene is not found in groundwater at the site because of its low solubility. Other sources of mercury are obviously so much more significant that this as a source pales by comparison. Nonetheless, since Olin does not have data to support a counter argument, Olin will include this SWMU with the old plant (CPC) landfill unit in the FS.

2. Olin objects to some EPA comments regarding site hydrogeology.

EPA Specific Comment #5 refers to this. Olin potentially disputes this comment because some statements may be contrary to data gathered at this site since 1980. Groundwater in the Alluvial Aquifer is recharged regionally from outcrops to the north and northwest of Olin's facility. Data gathered from 1980 to 1986, prior to the start-up of Olin's or Ciba's groundwater corrective action wells, clearly show that groundwater enters the site from the north. EPA has mistaken a localized mound in the vicinity of well PL-4S on Figure 1-8 of the FS report for a major recharge area. Olin agrees that the ponds created by beaver dams over the last 10 years are a localized recharge and there is a component from this potentiometrically high zone on the west toward the east. But this is not the flow from the north that Olin was referring to on page 1-12 of the FS report to which this comment refers. We were referring to the regional recharge from the north. Also, while Olin agrees that the operating corrective action wells create a groundwater divide, a natural divide existed prior to the start-up of these wells as clearly shown by six years of consistent well elevation measurements of more than a 50 monitoring wells.

3. EPA directs comparisons to ARARs that are inappropriate.

Specific Comment #6 refers to this. Olin disputes EPA's comment because it is an inappropriate use of Ambient Water Quality Criteria (AWQC) to apply them to groundwater. AWQCs are established to protect human and ecological receptors from exposure to contaminants in surface water. Maximum Contaminant Levels (MCLs) and, under certain circumstances, Maximum Contaminant Level Goals (MCLGs) are the appropriate ARAR for groundwater. Olin disputes that modeling of "this potential situation" (which is undefined in these comments) is required to determine final remedial goals because the information that EPA has directed Olin to prepare for this purpose is included in the RI and draft FS reports for this site.

4. EPA repeats issues which have already been resolved.

EPA Specific Comments #11 and #12 refer to this. Olin disputes EPA's comments because this same comment was made in reference to the draft RI report (Specific Comment #62, EPA comments on draft RI dated June 8, 1993), discussed at a meeting between EPA and Olin in Atlanta on July 1, and agreed to in a second meeting in Atlanta on July 7. Olin incorporated the

agreed-to language in the final RI submitted July 30, 1993 (see page 4-55). Olin questions why EPA is raising it again since EPA and Olin agreed that the effect of groundwater discharges on OU-2 wetlands and surface water will be assessed when the corrective action system wells, which prevent groundwater from the contaminated areas of the Olin site from discharging to the wetlands, are shut down.

5. EPA arbitrarily directs the use of technical factors which are inappropriate for some areas of the site.

EPA Specific Comment #13 refers to this. Olin disputes EPA's comment because a porosity of 0.40 is inappropriate for some soils at the site. Olin used 0.35 for some areas and 0.40 for others based on an examination of actual soil samples. This is more appropriate. To arbitrarily dictate the use of 0.40 for all soils ignores the site specific nature of soil samples and requires Olin to redo work that has been done in a manner more correct than EPA's comment directs.

6. EPA inappropriately extends statements made to address specific areas in the FS report to generalizations and directs Olin to delete them.

EPA Specific Comment #14 refers to this. Olin disputes EPA's comment because the statement refers only to rain water that infiltrates into the soil in the vicinity of the former CPC plant area borings. The analytical results from soil samples near the base of the borings, which contain very low concentrations of any constituents, and the hydrophobic nature of the constituents detected clearly indicate that there is only a possibility that the constituents may partition to the infiltrating rain water. The statement that EPA directs to be deleted does not refer to groundwater, as EPA seems to believe.

7. Certain of EPA's comments are in error.

EPA Specific Comment #15 refers to this. Olin disputes EPA's comment because benzene was not detected in waste/fill material.

8. EPA directs activities that are impossible to comply with.

EPA Specific Comment #20 refers to this. Olin disputes EPA's comment because it directs that the results of food chain modeling be included in the FS report. EPA notified Olin on June 15, 1993, that the ecological assessment of OU-2 lacked adequate detail and that additional work would be required. On July 7, 1993, EPA provided Olin with a scope for the additional work, which includes food chain modeling. On September 3, 1993, Olin provided EPA with a proposed work plan for ecological assessment over and above EPA's July 7 scope, to determine site specific effects of the chemicals present in OU-2 on ecological receptors. EPA and Olin agree that food chain modeling will be a part of the additional work, but have not agreed on the model to be used or the input parameters to the model. Therefore, Olin cannot conduct this modeling and include the results in the FS report within the time frame EPA is requiring for resubmission of the FS report.

9. EPA directs Olin to use model results in cases where actual data is available.

EPA Specific Comment #31 refers to this. Olin disputes EPA's comment because the "assumed total depth" EPA refers to was based on actual soil data, which is always superior to any model result.

10. EPA directs actions that are contrary to RI/FS guidance.

EPA Specific Comment #37 refers to this. Olin disputes EPA's comment because this is not the process set forth in the October 1988 guidance for presenting alternatives.

11. EPA directs actions with which it knows Olin cannot comply.

EPA Specific Comment #39 refers to this. Olin disputes EPA's comment because Olin informed EPA at a meeting in Atlanta on August 10, 1993, that data were unavailable to make the estimates directed in this comment. Olin's proposal of September 3, 1993, for additional work in OU-2 provides for data collection that may allow some estimate of sedimentation rates and times to be made, but this is area of great uncertainty. If EPA accepts Olin's proposal Olin will attempt to make as good an estimate as the data allow.

12. EPA erroneously concludes that Olin's modeling for the estimation of soil action levels is incorrect.

EPA's untitled introduction to Enclosure B, Enclosure B's General Comments #2, 3, and 4, and Specific Comments #4, 5, 7, 8, 9, and 10 refer to this. Olin disputes EPA's comments because they are generally based on incorrect assertions and apparent lack of understanding of use of the models and how Olin applied them to the site specifics at McIntosh.

Specifically, Olin details its basis for disputing these comments as follows. In order to simulate fate and transport of contaminants in the unsaturated zone, it is necessary to account for several processes. These include advection, molecular diffusion, mechanical dispersion, adsorption and decay. Associated with each of these processes is an input parameter. For example, the input parameter associated with advective transport of contaminants is the seepage velocity that may exhibit spatial and temporal variation; for molecular diffusion, the input parameter is the chemical specific molecular diffusion coefficient. These parameters are estimated using either (i) literature values, (ii) field measured values, or (iii) estimated using other models. Specifically, seepage velocity is often empirically estimated or obtained using other (flow) models because there is no way to directly measure this parameter in the field. The other parameters (bulk density, porosity, diffusion coefficient, etc.) are generally estimated or measured in the field.

Thus, the simulation of contaminant migration in the unsaturated zone requires two models:

- a flow model, and
- a transport model.

These two models are discussed below.

The primary objective of a flow model is to estimate the seepage velocity that is an input to the transport model. This model accounts for the variation in suction pressure and saturation with depth. As mentioned in EPA comments, "water in the unsaturated soil is strongly affected by suction head gradients and its movement is subject to considerable variations in spatial and temporal variations in unsaturated hydraulic conductivity resulting from changes in water content." Such variations in pressure are not present in the saturated zone. Note: the flow model is necessary to estimate the seepage velocity only, and if the seepage velocity can be conservatively estimated by other means, a flow model is not necessary.

For the McIntosh site, the net recharge rate was estimated with the HELP model (to account for evapotranspiration and surface runoff). This rate (equivalent of Darcy's velocity) is divided by water content to estimate the seepage velocity. The water content was obtained from the PESTAN model, which uses the Clapp Hornberger equation. We believe this is a reasonable and frequently used method to estimate seepage velocity.

The formulation of an unsaturated zone transport model is the same as that in the saturated zone unless multiphase or vapor phase transport is important. Thus, in the absence of these processes, any fate and transport model that is valid for saturated zone would also be valid for the unsaturated zone. The specific values of the input parameters would, of course, differ between the unsaturated and the saturated zone.

For developing clean-up levels at the McIntosh facility, the SOLUTE model that is publicly available and based on an exact solution of the analytical equation was used and is valid for transport in both the saturated and the unsaturated zones. Since SOLUTE was implemented with input values that were either site-specific or conservative estimates, the results are valid.

EPA's Enclosure B, General Comment #2 is disputed because SOLUTE was used as a transport model as described above. The PSALs are based on the predicted groundwater concentrations at the boundary of the unit (i.e., without considering attenuation in the saturated zone), which is conservative.

EPA's Enclosure B, General Comment #3 is disputed because it is inappropriate to calibrate the modeling to the existing soil or groundwater concentrations because the residual concentrations are primarily due to past releases.

EPA's Enclosure B, General Comment #4 is disputed as based on the discussion above relative to Olin's dispute #12.

EPA's Enclosure B, Specific Comment #4 is disputed because steady-state was assumed for the flow model. Transient conditions were assumed for the transport model as the source varied with time.

EPA's Enclosure B, Specific Comment #5 is disputed because EPA has incorrectly combined weights and volumes. The equation involved are:

$$Kd = S/C$$

where:

S is in grams of chemical per grams of soil
C is grams of dissolved chemical per volume of solution

It is incorrect to cancel these terms out to get L/kg.

EPA's Enclosure B, Specific Comment #7 is disputed as explained above under the discussion of the two models: flow and transport.

EPA's Enclosure B, Specific Comment #9 is disputed because, as stated above, seepage velocity was correctly estimated as the infiltration rate divided by the volumetric water content.

EPA's Enclosure B, Specific Comment #10 is disputed because, as stated above, the SOLUTE model as it was applied to the site is to estimate transport for unsaturated flow. Olin agrees that biodegradation rates should be incorporated into the modeling, and that is why the modeling was done with and without biodegradation rates. Regarding the last sentence in Comment #10, EPA specifically approved, during the May 19, 1993, conference call, use of the Summer's model, which entails use of an appropriate aquifer mixing depth.

13. 30 days is insufficient time for submission of the revised FS report.

EPA's September 2, 1993, letter specifies that Olin must submit the revised draft FS within 30 days from receipt of the letter. However, the nature and extent of the EPA's comments, and the revisions to the FS that are required by these comments, are so significant and fundamental that it would not be possible for Olin to meet the 30 day deadline. It is a simple fact: even though Olin would use its best efforts to comply, we could not meet the EPA's deadline. An extension is particularly warranted where, as here, EPA's disapproval of several important items constitutes a last minute rejection of a Olin's long-standing approach which we have previously articulated to EPA many times. For this reason, we are including the 30-day deadline as an issue for dispute resolution.

Nonetheless, Olin has been working since September 7, when it received EPA's comments, to revise the FS. It is Olin's position that, even under an aggressive work schedule, Olin will be pressed to submit the FS, revised in accordance with all of the non-disputed comments from

EPA, by October 7, 1993, the end of the 30-day period. For example, even under the best of circumstances, our work to conceive, think through, and engineer to a level suitable for cost estimating, remedial alternatives for soils west of the former CPC plant area will take at least 20 days by itself to complete. Likewise, the modeling that is directed is a particularly time intensive task requiring additional time.

It is Olin's further position that the company is relieved of its obligation to perform and resubmit the disputed provisions of the FS and any item which is "directly dependent, contingent or reliant on the disputed decision," until the dispute is resolved. See the last paragraph of AOC Section XIV. If the dispute resolution process results in a determination that Olin must make some of the disputed revisions to the FS, then the 30 day time period for submitting such further revisions will run from the date of the decision.

EPA and Olin may resolve many of these issues during the 14-day negotiation period provided under the Order. However, Olin must invoke dispute resolution in a timely manner, requiring a decision by the EPA Waste Management Director, in the event that a final agreement cannot be reached. In the hope of resolving these disputes, Olin requests a meeting with EPA so that EPA and Olin can exchange information and positions and make a good faith attempt to reach agreement in accordance with the dispute resolution process as specified in the AOC. Olin hopes that EPA management involved in the dispute resolution will attend any meeting that is held regarding this Objection.

Please call me if you have any questions about this Objection.

Sincerely,
OLIN CORPORATION

J. C. Brown
Manager, Environmental Technology

cc: W. A. Beal
D. E. Cooper (2)
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